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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/778,036	02/07/2001	Nobuhiro Usui	P 276747 558762	6197

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PILLSBURY WINTHROP, LLP
P.O. BOX 10500
MCLEAN, VA 22102

EXAMINER

VO, HAI

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 03/26/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/778,036

Applicant(s)

USUI ET AL.

Examiner

Hai Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 6-344362 in view of Ozeki et al (US 6,080,469). The page numbers referred to below correspond to those of the English translation of the Japanese Patent. JP'362 teaches an automobile panel having a layered construction as follows: an epidermis material 8, a solidification layer 11, a polypropylene foam layer 13 and a solidification layer 11 (figure 7, page 1 of drawing, and claim 3). JP'362 is silent as to the dissimilar thickness of the solidification layers; therefore, it is necessary and thus obvious for the skilled artisan to look to the prior art for the different thicknesses of the solidification layers. Ozeki teaches a laminated foam sheet comprising a foamed core layer, a film layer (P) laminated on one side of the foamed core layer and a film layer (S) laminated on the other side of the foamed core layer (abstract). Ozeki discloses the thickness ratio between the two film layers not more than 0.7 and due to the different thickness, the cooling rates can be balanced between upper and the rear surfaces of the laminated foam sheet coming out of the oven after heating and standing for cooling in the atmosphere before molding (column 6, lines 35-45). In an absence of unexpected results, it would have been obvious to one having ordinary

skill in the art at the time the invention was made to employ the solidification layers having the thickness relation instantly claimed, motivated by expectation of successfully practicing the invention of Ozeki. Such a thickness ratio is also taught by the prior art to balance the cooling rates between upper and the rear surfaces of the laminated foam sheet coming out of the oven after heating and standing for cooling in the atmosphere before molding and thus further suggesting the modification.

With regard to claims 2 and 6, JP'362 teaches an epidermis comprising a cushion layer on the backside (claim 2, page 1 of claims). Since the panel of JP'362 as modified by Ozeki is structurally the same (four-layer construction) and made of the same material as the claimed article, it is the Examiner's position that the elasticity properties and melt flow rate value of polypropylene would be inherently present.

With regard to claim 4, JP'362 discloses the solidification layer having a thickness of 0.4 mm ([0060], page 8 of detailed description).

3. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitayama et al (US 6,124,025) in view of Ozeki et al (US 6,080,469). Kitayama discloses a facing laminating polypropylene-based foamed sheet having a facing material at least on one side of the foamed sheet wherein the foamed sheet is a three-layered product consisting of a skin layer, a foam layer and a skin layer (figure 1, column 10, lines 5-14). Kitayama is silent as to the dissimilar thickness of the skin layers; therefore, it is necessary and thus obvious for the skilled artisan to look to the prior art for the different thicknesses of the skin layers. Ozeki teaches a

laminated foam sheet comprising a foamed core layer, a film layer (P) laminated on one side of the foamed core layer and a film layer (S) laminated on the other side of the foamed core layer (abstract). Ozeki discloses the thickness ratio between the two film layers not more than 0.7 and due to the different thickness, the cooling rates can be balanced between upper and the rear surfaces of the laminated foam sheet coming out of the oven after heating and standing for cooling in the atmosphere before molding (column 6, lines 35-45). In an absence of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the skin layers having the thickness relation instantly claimed, motivated by expectation of successfully practicing the invention of Ozeki. Such a thickness ratio is also taught by the prior art to balance the cooling rates between upper and the rear surfaces of the laminated foam sheet coming out of the oven after heating and standing for cooling in the atmosphere before molding and thus further suggesting the modification.

With regard to claims 2 and 6, Kitayama discloses a facing material being a foamed sheet or a fabric layer (column 9, lines 55-60). Since the panel of Kitayama as modified by Ozeki is structurally the same (four layer construction) and made of the same material as the claimed article, it is the Examiner's position that the elasticity properties and melt flow rate value of polypropylene would be inherently present.

With regard to claim 4, Kitayama discloses the skin layer having a thickness of 20% of thickness of the foam layer (figure 1).

4. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozeki et al (US 6,080,469). Ozeki teaches a laminated foam sheet comprising a foam core, a film layer (P) laminated on one side of the foam core, a film layer (S) laminated on the other side of the foam core and a decorative layer provided on the film layer (P) (abstract, example 5). The film layer (P) is thicker than the film layer (S) (example 5). Ozeki discloses the thickness ratio between the two film layers not more than 0.7 and due to the different thickness, the cooling rates can be balanced between upper and the rear surfaces of the laminated foam sheet coming out of the oven after heating and standing for cooling in the atmosphere before molding (column 6, lines 35-45). Since the thickness is recognized as a result-effective variable, differences in thickness will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such particle size is critical or provides unexpected results. In an absence of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the film layer (P) thinner than the film layer (S) motivated by the desire to balance the cooling rates between upper and the rear surfaces of the laminated foam sheet coming out of the oven after heating and standing for cooling in the atmosphere before molding.

With regard to claims 2 and 6, the additional foam layer is further laminated to the decorative layer (column 9, lines 4-7). Since the panel of Ozeki is structurally the same (four-layer construction) and made of the same material as the claimed article,

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it is the Examiner's position that the elasticity properties and melt flow rate value of polypropylene would be inherently present.

With regard to claim 3, the thickness ratio between two film layers is not greater than 0.7 (column 6, lines 35-39).

With regard to claim 4, the film layer has the thickness of 120 microns (example 1).

With regard to claim 5, the core is made of a mixture of polyphenylene and polystyrene resins (column 9, lines 15-18; and column 7, lines 55-58).

Response to Arguments

5. Applicant's arguments with respect to claims 1-6 have been considered but are moot in view of the new ground(s) of rejection.
6. The art rejections over JP-344362, Kitayama, or Lindermann have been overcome by the present response.
7. U.S. Patent No. 6,124,025 to Kitayama is still considered a prior art even though Applicants enclose a translation of their priority application. The effective filing date of the U.S. Patent No. 6,124,025 is October 14, 1999 that is earlier than that of priority Applicant as of February 18, 2000.
8. The art rejections over Ozeki have been maintained because of the following reasons. Applicants' arguments that Ozeki does not teach a foamed thermoplastic resin article including a thermoplastic foamed based material composed of a foamed core layer and two skin layers comprising the same material are not commensurate in scope with the claims. The claims do not specifically require the foamed core layer and two skin layers comprising the same material. Further, since the thickness of the

skin layer is recognized as a result-effective variable, differences in thickness will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such particle size is critical or provides unexpected results. In an absence of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the film layer (P) thinner than the film layer (S) motivated by the desire to balance the cooling rates between upper and the rear surfaces of the laminated foam sheet coming out of the oven after heating and standing for cooling in the atmosphere before molding.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (703) 605-4426. The examiner can normally be reached on Tue-Fri, 8:30-6:00 and on alternating Mondays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

HV

March 23, 2003

Elizabeth M Cole
ELIZABETH M. COLE
PRIMARY EXAMINER